## A TOOL FOR TRANSMITTING OUR CULTURE: REVIEW OF BEHAVIOR ANALYSIS FOR LASTING CHANGE BY BETH SULZER-AZAROFF AND G. ROY MAYER

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Behavior Analysis for Lasting Change was written by two experienced educators. The organization of the text, together with its accompanying instructor's manual and study guide, help the instructor to arrange desired student behavior and to construct instructional consequences.

This text is especially useful for the preparation of educators and the training of human service delivery personnel, but it can also be used for training in business applications. In it, the authors present a contemporary survey of the science of behavior analysis and its technology. The text teaches people what applied behavior analysis is and how to discriminate the field from other behavioral science and behavior-change approaches. It teaches how to evaluate the effectiveness of applications and how to make changes accordingly. Its authors recommend continued and direct supervision by the instructor as the book is used.

To extend the generality of skills taught in the text, Sulzer-Azaroff and Mayer use both fictitious and actual examples drawn from their extensive personal experience as behavior analysts. In their discussion, they incorporate over 1,000 references. To enhance readability, they insert occasional touches of humor.

In many ways, Behavior Analysis for Last-

ing Change is a waterfront coverage of the field as it evolved through the late 1980s. The broad scope of its citations move the text in the direction of a compendium. Indeed, at certain points its use generates feelings similar to approaching the south rim of the Grand Canyon: Applied behavior analysis has become a very large field. The thorough list of references at the end of the text chronicles the development of the field and reveals the scholarship of the authors. Their perspective is clearly one of seasoned participants.

## Specific Content of the Text

Each chapter is preceded by a convenient summary of goals. These behavioral objectives are formulated in active behavioral terminology. A thorough table of contents lists the content of its 31 chapters with an outline of subject matter divisions and associated page numbers. Introductory chapters discuss basic features of applied behavior analysis and issues related to the selection of goals to be achieved in the process of behavior analysis.

Chapter 4 commences the discussion of behavioral assessment, behavioral objectives, and basic dimensions of behavior. Chapters 5 and 6 discuss issues related to recording techniques, including the reliability of observer measures. Chapter 6 reviews the implementation of observational systems and the calibration of observers. The notion of baseline comparison is introduced in preparation for treatment application. Chapter 7 commences the definition of treatments

Sulzer-Azaroff, B., & Mayer, G. R. (1991). *Behavior analysis for lasting change*. Fort Worth, TX: Harcourt Brace.

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while introducing the concept of controlling contingencies. Ethical issues are discussed and related to the importance of peer support and review.

With the student then clearly familiar with measurement issues, chapter 9 begins the discussion of treatments applied with the purpose of increasing desirable behavior. The concepts of positive and negative reinforcement, punishment, and conditioned reinforcers are then introduced. Chapter 10 itemizes various kinds of positive reinforcers, ranging from contrived tangible items to conditioned social reinforcers. Chapter 11 then raises the issues of immediacy and competing contingencies.

Chapter 14 reviews experimental evaluation designs, listing the advantages and drawbacks of group comparison designs while contrasting them with individual case designs, such as the reversal and multiple baseline design (both within and across individuals and situations). Issues of identification of valid functional relations and their generality to subject populations are also considered. The subsequent three chapters discuss the development and modification of stimulus control, including generalization, discrimination, and establishing operations. Techniques of modeling, prompting, and fading are then described.

Chapter 19 begins the treatment of teaching new behaviors and introduces the student to the concepts of shaping and programmed instruction. Subsequent chapters introduce a behavioral treatment of verbal behavior and the distinction between rule-governed and contingency-shaped behavior.

Chapter 22 returns to issues arising from functional analyses that use more complex designs, including assessment procedures such as changing criterion, multiple probes, alternating treatments, and multielement designs. Sulzer-Azaroff and Mayer reveal their clear bias in favor of methods that use positive reinforcement by first introducing pro-

cedures that reduce behavior without the application of contingent aversive stimulation. Chapters 23 through 26 move from simple extinction to the combination of extinction with other strengthening procedures and eventually to the use of time-out. In doing so, the authors discuss the many social issues raised by the use of aversive procedures, including legal constraints.

Chapter 27 discusses punishment techniques and the variables that influence their effectiveness. The authors consider the advantages of applying aversive procedures, the durability of effects, and finally, the disadvantages. The remaining chapters review techniques for extending behavioral treatment effects, both ahead in time and to other settings.

## Text Accompaniments

Beth Sulzer-Azaroff and Laura J. Hall prepared a 148-page student study guide to accompany the text. It was designed to help to accomplish the goals of each chapter. The guide contains instructions about its use, recommendations about student study techniques, suggestions about applying the developing skills, and a set of study questions for each chapter.

Sulzer-Azaroff and Hall also prepared a helpful 272-page instructor's manual. This manual introduces the instructor to possible formats of scheduling assignments and recommends classroom activities, assessment techniques, possible use of the personalized system of instruction (PSI) format, and related coursework and field activities. This manual contains an A and B short essay quiz for each chapter, together with answer keys and recommended point criteria exam items. Each essay item in the manual is keyed to the student study guide questions. The second half of the instructor's manual contains multiple-choice items for each chapter and an answer key for each set of items.

Sulzer-Azaroff and Mayer recommend use of the entire text in a two-semester sequence, if the assemblage of students remains intact. Broken up this way, they recommend using the first 16 chapters in the first semester and the remaining 16 in the second. However, if many students do not take the second semester, the authors recommend a specific selection of chapters. They suggest keying chapter use to the user population (e.g., teachers, managers, etc.) while using selected goals at the beginning of chapters. Schools, businesses, institutions, and service organizations could conduct their staff training over 32 weeks, scheduling one chapter per week and supplementing each with supervised practice in the interim. In contrast, management training organizations may elect a more intensive program, assigning a chapter or two per day and spending group time on discussion, simulations, lectures, audiovisual presentations, and so forth.

Sulzer-Azaroff and Mayer suggest that the text might be used simply with lectures and interactive discussions. Better yet, the instructor may also assign research and conceptual papers for further enrichment. Films and television programs can, of course, be incorporated into the sequence of chapters.

Helpful Ancillary Features

Behavior Analysis for Lasting Change contains a convenient list of authors cited in the

text (with page numbers). It also contains one of the most comprehensive glossaries to be found in an introductory text, again with entries keyed to page numbers. Finally, the subject index is extensively detailed and keyed to pages of the text. An epilogue contains a summary of procedures for increasing behavior, occasioning or teaching new behavior, reducing behavior, promoting transfer and maintenance of behavior, and maintaining its strength.

In summary, Behavior Analysis for Lasting Change is an extensive and competent global coverage of the field of applied behavior analysis up to about 1990. I think it should be a mainstay in the armamentarium of every behavior analyst as a reference text. When used with its accompanying study guide and instructor's manual and the suggestions of its authors, including rich opportunities for supervised application, it can establish an extensive repertoire of skills. This text, like the field it describes, has an important characteristic: It works.

## REFERENCE

Sulzer-Azaroff, B., & Mayer, G. R. (1991). *Behavior analysis for lasting change*. Fort Worth, TX: Harcourt Brace.

Received April 8, 1997 Initial editorial decision April 22, 1997 Final acceptance May 16, 1997 Action Editor, David P. Wacker